

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0021] with the following amended paragraph [0021]:

[0021] FIG. 2 shows in perspective view the front portion of the receiver 104 with the top plate 112 and other drive structures removed for clarity. At the front of the receiver 104 a front wall [[220]] 210 is provided for limiting forward movement of the cartridge 110 once the cartridge 110 has been fully inserted into the receiver 104. A brake release pin 220 is provided on the front wall 210 for releasing a reel brake contained within the cartridge 110. A media flag 230 is coupled to the receiver 104 and is configured to trigger a media flag sensor 310 (shown in FIGS. 3A-3B) when a cartridge 110 is inserted into the receiver 104. The media flag 230 includes a finger 232, which protrudes into the interior region of the receiver 104 such that the finger 232 is depressed when an appropriate cartridge 110 is inserted, as will be described in greater detail below. As used herein, a flag comprises any member that is movable between at least two different positions such that the presence of the flag is detectable by a sensor.

Please replace paragraph [0028] with the following amended paragraph [0028]:

[0028] When the cartridge 110a is being inserted into the receiver 104, a forward-driving force is applied to the cartridge 110a, typically by a robotic picker mechanism or by a human operator. Once the front side 111a of cartridge 110a contacts the brake release pin 220, continued forward-driving force upon the cartridge 110a causes the receiver 104 to move with the cartridge 110a in the forward direction. This forward movement of the receiver 104 causes the receiver flag 330 to move forward such that a leading edge of the receiver flag 330 triggers the receiver flag sensor 340. The receiver flag sensor 340, in turn, transmits a signal to a controller 350 in the tape drive system 100 indicating that the receiver flag 330 has been detected. Normally, this signal would indicate to the tape drive system 100 that a cartridge has been fully inserted into the receiver 104 and that a cartridge load process should be initiated. However, in this case, because the cartridge 110a was prevented from being fully inserted into the receiver 104, the media flag sensor 310 has not transmitted a signal to the controller 350 indicating that the media flag 230 has

been detected. Therefore, the controller 350 can conclude that the cartridge 110a which has been inserted into the receiver 104 is of an incompatible type and will proceed with initiating an error sequence. This error sequence can include, for example, sending a signal to a library controller or robotic picker controller indicating that the cartridge 110a is improper and should be removed. In another embodiment, the controller 350 may cause an error message to be displayed to a human operator using, for example, an indicator light or a message on a computer terminal display. This error message can instruct the operator to remove the cartridge 110a from the receiver 104. Thus, the signals from the media flag sensor 310 and the receiver flag sensor 340 can be used in conjunction to enable the tape drive system 100 to determine when an improper cartridge 110a has been inserted and to take the appropriate steps to remedy the situation by stopping the cartridge loading process and having the cartridge 110a removed.

Please replace paragraph [0033] with the following amended paragraph [0033]:

[0033] FIG. 4D illustrates a situation similar to the one shown in FIG. 4C, except in FIG. 4D, the indicator slot 820d in the cartridge 110d has a depth S2, which is deeper than the depth S1 of the indicator slot 820c in cartridge 110c. Thus, the finger 232 of the media flag 230 will be received deeper into the indicator slot 820d and the media flag 230 will not extend as far as the media flag 230 in FIG. 4C. The media flag 231 will extend sufficiently far to be detected by the media flag sensor 310, thereby indicating to the controller 350 that a valid cartridge 110d has been inserted and the loading process should be initiated. In one embodiment, a first type of tape cartridge 110c, with front side 111c, has an indicator slot 820c having a depth S1 of approximately 0.10" and a second type of tape cartridge 110d, with front side 111d, has an indicator slot 820d having a depth S2 of approximately 0.18".

Please replace paragraph [0037] with the following amended paragraph [0037]:

[0037] As can be seen in FIGS. 4B-4D, after the cartridges 110b-110d are initially loaded into the receiver 104, both the media flag 230 and the receiver flag 330 are positioned such that they are detected by the media flag sensor 310 and receiver flag sensor 340, respectively. As a

result, both sensors 310, 340 are transmitting signals to the controller 350 indicating that they detect the presence of the flags 230, 330. As illustrated in FIGS. 6A and 7A, the distance between the trailing edge 235 and leading edge 234 of media flag 230 is W2. In the situations shown in FIGS. 4B-4D, the media flag 230 is separated from the receiver flag 330 by a unique and predetermined distance corresponding to the depth of the indicator slots 820c-820d or the lack thereof (as in FIG. 4B). For example, in FIG. 4B, the trailing edge 235 of the media flag 230 is separated from the trailing edge 335 of the receiver flag 330 by a distance D2, which is known to correspond to the cartridge type for cartridge 110b. In FIG. 4C, the trailing edge 235 of the media flag 230 is separated from the trailing edge 335 of the receiver flag 330 by a distance D3, which is known to correspond to the cartridge type for cartridge 110c, and in FIG. 4D, the trailing edge 235 of the media flag 230 is separated from the trailing edge 335 of the receiver flag 330 by a distance D4, which is known to correspond to the cartridge type for cartridge 110d.

Please replace paragraph [0039] with the following amended paragraph [0039]:

[0039] In the illustrated embodiment, the loading process begins by translating the receiver 104 in the forward direction. FIG. 5B illustrates the state of the media flag 230 and receiver flag 330 after the receiver 104 and cartridge 110b has been translated a distance T1. Similarly, illustrated in FIG. 6B, the cartridge 110b is translated a distance T2. Also, illustrated in FIG. 7B, the cartridge 110b is translated a distance T3. At this point, the trailing edge 235 of the media flag 230 in FIG. 5B has passed beyond the media flag sensor 310, so the controller 350 will receive a signal from the media flag sensor 310 indicating that the media flag 230 is no longer detected. The loading mechanism 120 will continue to translate the receiver 104 forward until the trailing edge 335 of the receiver flag 330 passes beyond the receiver flag sensor 340. The controller 350 may also be configured to monitor the movement of the receiver 104 using, for example, a tachometer connected to a motor (e.g., a DC motor or a stepper motor) driving the loading mechanism 120. Thus, the controller 350 can determine the distance the receiver 104 travels between the moment that the media flag 230 ceases to be detected and the moment that the receiver flag 330 ceases to be detected. By taking the known distance between the media flag sensor 310

and the receiver flag sensor 340 (shown as distance S) and subtracting this monitored distance of travel of the receiver 104, the distance D2 can be determined. This distance D2 is the distance between the trailing edge 235 of the media flag 230 and the trailing edge of 335 of the receiver flag 330. The controller 350 can be programmed to correlate the distance D2 with the cartridge type of cartridge 110b, and thereby identify the type of cartridge that has been inserted into the receiver 104.